Solar Grand Prix – Race Day Schedule

Saturday, April 10 – Good Neighbor Park, 2800 Studebaker Road

8:30 AM	Registration/Vehicle Inspection
9:30 AM	Opening Ceremony
9:45 AM	Round 1
11:00 AM	Round 2
12:00 PM	Lunch
1:00 PM	Round 3
1:45 PM	Semi-Final Round
2:15 PM	Final Round
2:30 PM	Awards Ceremony

Solar Grand Prix Rules

Materials and Vehicle Specifications

1. The cars must use the provided solar panel and motor, which must be used without modification: panels cannot be shaved, drilled or delaminated; motors may not be re-wound or disassembled. One solar panel and one motor allowed per car. However, reflectors, supports, and power leads may be added to these components as needed.
2. The remainder of the vehicle may be made from any other materials.
3. The vehicle may not be larger than 12 in. wide by 24 in. long by 12 in. high.
4. The solar vehicle must be structurally sound without the solar panel. The solar panel must be able to be removed from the vehicle, and easily disconnected from the motor.
5. Two 1 in. x 1 in. surfaces must be available for the car number, which should be easily visible when the vehicle is in the ready to race position.
6. The vehicle must be powered solely by the sun's energy. No energy storage devices (e.g. flywheel battery, etc.) may be used in conjunction with the solar panel.
7. The vehicle will be steered via a guide wire that runs the length of the track (typically fishing line). The vehicle must be attached to the guide wire by a minimum of 1 attachment point. The vehicle must be easily attached (and removed) from the wire without disconnecting the guide wire.
8. The vehicle must be of students' own design and manufacture. Each team from a given school/organization must have a unique car design.

The Race Track

9. The race lane is 2 ft. wide and 60 ft. long. The track is a hard flat surface and will be oriented with the starting line at the northeast and the finish line at the southwest.
10. The guide wire will be located in the center of the lane. The wire will be no higher than 3/4 in. above the track surface. The wire will be small diameter line, such as fishing line. There

will be no free end on the guide wire, thus the cars must be hooked onto the wire, not strung onto it.

Conduct of the Race

11. The races will be run in a double elimination format. Thus you will have a minimum of two opportunities to race before you are eliminated from the competition.
12. Only two members of the race team will be allowed on the track during the race: one at the starting line and one at the finish line.
13. Teams are comprised of 2 – 4 members. Each team must have a coach (teacher, parent, or other volunteer) who can assist the students, and be at the race.
14. The vehicle will start from behind the starting line with all wheels touching the track. The solar panel will be covered by an opaque sheet which will be held above the panel by a member of the race team to block the sunlight. The vehicle should not be touched by the sheet or any member of the team at this time. When the line judge gives the signal to start the race, the team member will remove the sheet so the panel will be exposed to the sunlight.
15. There will be a 5-minute time limit to prepare your vehicle to race in your lane. This should be sufficient time to attach the vehicle to the guide wire. The race will start at the end of this time limit regardless of whether the vehicle is ready to compete.
16. Once the race has begun, team members are not allowed to touch their vehicle or be on the race lanes until their vehicle has crossed the finish line and the judges have determined the heat completed. Pushing the vehicle after the race has begun may result in disqualification or a re-run of the race.
17. Any car that leaves its lane will be disqualified from the heat in question. However, the offending vehicle may compete in its second trial if not having done so already. If the car leaving its lane interferes with any other cars, those cars whose run was interfered with will be allowed an additional opportunity to run.
18. Winner of a heat will be the first vehicle to cross the finish line or the vehicle to travel the furthest down the track. Generally speaking, the top two finishers will advance to the next heat. In the event of a tie, the judges may determine multiple winners and admit multiple cars or require a head-to-head race, to advance to the next round of competition.

Awards

19. Awards will be given for speed (middle school and high school will be awarded separately), design and student's choice.
20. The design award winners are selected by the technical judges and will be given in three different areas (middle and high school teams will not be awarded separately):
    a. Design (Overall) - For this award, the car will be judged on a number of different areas, including innovation, craftsmanship, and technical merit - the car should be fast too.
    b. Design (Innovation) - This award will be given to cars with unique and creative design elements.
    c. Design (Best Re-use of Materials) - This award is given to cars that best utilized recycled and salvaged materials.
21. Student's Choice Award – Race participants will decide the winners by voting for their favorite car.